or remedial action needs to be initiated, can be incredibly short and any improvement to the viewer's reaction time or ability to assimilate the information more readily and rapidly will provide a distinct and possibly life-saving advantage.

[0072] The present invention has many distinct and substantial advantages over any method available before, as stated previously the greatest of these is that due to the faster perception time to an alarm situation the remedial action can be initiated more rapidly which in turn will substantially increase the chance of the remedial action being successful.

[0073] Another advantage is that in applications that currently use the separate alarm panel, by using the instruments disclosed within the present specification these panels will become obsolete therefore freeing up space in what is generally a confined environment.

[0074] A further advantage in these applications is that the viewer will have less areas in which to scan for relevant information and will therefore have lower fatigue levels than would presently be encountered.

BRIEF DESCRIPTION OF DRAWINGS

[0075] Further aspects of the present invention will become apparent from the following description which is given by way of example only and with reference to the accompanying drawings in which:

[0076] **FIG. 1** is a simplified perspective view of a dual screen display operating in accordance with one preferred embodiment of the present invention.

BEST MODES FOR CARRYING OUT THE INVENTION

[0077] With reference to **FIG. 1** there is shown an instrument containing a multi focal plane display generally indicated by arrow **1**.

[0078] The instrument display **1** consists of a background screen **(2)** in a parallel orientation with, but spaced apart from, a foreground screen **(3)**.

[0079] In **FIG. 1** both screens **(2, 3)** are transparent liquid crystal displays (LCD) panels, although the invention is not necessarily limited to the use of these displays.

[0080] A back light **(4)** is located behind the background screen **(2)** to provide illumination for the entire instrument display **(1)**.

[0081] Each of the screens **(2, 3)** are capable of displaying either primary **(5)** or secondary **(6)** information.

[0082] **FIG. 1** shows the primary information **(5)** is displayed on the foreground screen **(3)** and secondary information **(6)** is displayed on the background screen **(2)**.

[0083] It should be appreciated however that the reverse situation is equally feasible with the primary information **(5)** being displayed on the background screen **(2)** and the secondary information **(6)** being displayed on the foreground screen **(3)**.

[0084] It should also be appreciated that in a lot of applications only one piece of information **(5, 6)** will be shown on the instrument display **(1)**. This information **(5, 6)** can be on either the background screen **(2)** or the foreground screen **(3)**.

[0085] When the displayed information **(5, 6)** reaches a critical parameter or "alert level" the information will oscillate between the background screen **(2)** and the foreground screen **(3)** in order that the viewer will become preattentively aware that a critical situation is developing or has developed already.

[0086] In applications where both primary information **(5)** and secondary information **(6)** are present on the instrument display **(1)** either of the two methods of preattentiveness may be used.

[0087] For example:

[0088] a) When the primary information **(5)** and the secondary information **(6)** overlap or come into a proximity that is commensurate with an alarm situation the displayed information **(5, 6)** will change colour so that the viewer will be aware of this information.

[0089] Due to the transparency of the focal planes within the display, when the primary information **(5)** and the secondary information **(6)** overlap the combination of their colours will be displayed.

[0090] As discussed previously if the colours of the primary information **(5)** and the secondary information **(6)** are chosen carefully then the colour of the overlapped information **(5, 6)** would be obviously different to the viewer. The example mentioned earlier was if the primary information **(5)** was yellow and the secondary information **(6)** was blue then the colour of the overlap **(5, 6)** would be green.

[0091] b) If either the primary **(5)** or secondary **(6)** information reaches a critical or alarm level then the appropriate information **(5,6)** will oscillate between the background screen **(2)** and the foreground screen **(3)** thereby making the viewer preattentively aware of the situation.

[0092] Aspects of the present invention have been described by way of example only and it should be appreciated that modifications and additions may be made thereto without departing from the scope of the appended claims.

What I we claim is:

1. A method of displaying information on an instrument for viewing by user characterised by the steps of

a) displaying information on a first focal plane and,

b) moving the information displayed on the first focal plane to a different focal plane when an alarm or critical situation arises, and

c) then moving the information back to the first focal plane, and

d) repeating steps b and c in order that the viewer of the instrument becomes aware of the displayed information.

2. A method of displaying information for viewing by an user, including

at least two focal planes, and

a control system